



FOSSIL CLUB OF LEE COUNTY

SEPTEMBER 2011



Message from the President

Greetings to all members and friends of our Club.

I am pleased to have one of our friends as the speaker for our September meeting. Dr. Gregory S. Herbert, Geology Department of USF will tell us about the Last Ice Age. I am sure he will be most interesting as always so please don't miss the meeting.

While we are talking about friends of our Club, one of our long time members is also considered as a real friend to all of us. He is Curt Klug, our Webmaster. He maintains a great looking site and is diligent about keeping it up to date. For those who are interested, all of our newsletters since June 2005 are posted there. Curt, thanks from all of us.

At our last meeting we briefly talked about a change in ownership at the Quality pit. We have enjoyed hunting fossils there for several years, but the new operators have decided to close the pit to all visitors. We have submitted a formal request to meet with the senior management (they are not local) to see if there is anything we can do to change their minds. One attachment to our letter request was a copy of our Code of Ethics (which is also included in this newsletter) that explains our willingness to sign liability waivers and other pledges in return for permission to hunt on their property. As of yet, we have not received a response to our letter.

Our friends at the Orlando Fossil Hunters Club have invited us to their Fossil Fair, which will be held on Oc-

tober 8th and 9th, 2011 at the Central Florida Fairgrounds in Orlando. It is a good show and a pleasant alternative for all of our members who are unable to go fossil hunting in our rain swollen rivers.

We have finalized plans for our Fossil Show, which is scheduled for Saturday, December 3rd, 2011. We are gathering donations for the Grand Raffle, silent auction and the Kid's games. If you would like to offer some fossil specimens, rocks, minerals, or other items, see one of our directors. Our Show flier is in final preparation and will be available soon.

Everyone is encouraged to bring in some items for Show and Tell. We always look forward to seeing what other members are finding (tell us where you found it!) or what they have in their collections. We will also have a raffle with lot of interesting items on the table. Also, we will have a large selection of riker boxes.

Thanks to all members who have written or submitted articles and photos for our newsletter. We appreciate you for participating. We also appreciate all of our members who continue to support their club.

I look forward to seeing everyone at the September meeting. Regards, Bill

Next Meeting

Our next meeting will be September 15th
7:00 pm at the Iona House at the Calusa
Nature Center.

OFFICERS

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COMMITTEES

Cherie Neat, Newsletter
Curt Klug, Web Master
Bill Shaver, Speakers
Louis Stieffel, Auctioneer
Kathy Arnold, Club Merchandise
Pam Plummer, Club Badges
Ray Seguin, Membership
Joshua Frank, Refreshments
Dean Hart, Refreshments co-chairman
Gunther Lobish, Pit Trips
Michael Siciliano, Raffle and Dive Trips
Coby Pawlowski, Youth Activities Director
Hollie Tiner, Club Photographer
Gunther Lobish, Invertebrate Education
Louis Stieffel, Vertebrate Education

2011 SCHEDULE FOR REFRESHMENTS

September—Kathy Pawlowski

October—Marc Cantos

November—Need a Volunteer

December—Holiday Dinner

Thanks to everyone for their support and thanks to Joshua Frank and Dean Hart (refreshment committee) for organizing this club function. Everyone is invited to participate and your efforts will be greatly appreciated. The Club will reimburse you for your expenses. See our Treasurer for details.

SPEAKER FOR SEPTEMBER 2011

Dr. Gregory S. Herbert, Department of Geology at the University of South Florida is the speaker for the September 15th, 2011 meeting. His presentation is on the Last Ice Age, how it started and ended, and what it all means to humanity now and in the future.

MINUTES OF AUGUST MEETING THE FOSSIL CLUB OF LEE COUNTY

Date: August 18, 2011

Place: Iona House, Calusa Nature Center

Attendance: 42

Presided by: Bill Shaver

Bill outlined tonight's program and also talked about the fact that the Quality mine is now under new ownership. As of now, no one will be allowed on the property for fossil hunting. Bill has developed a letter and other documents and submitted them to the new owners asking them for a face-to-face meeting to talk about letting our Club back on the property.

The Treasurer gave his report and said that \$743.00 was spent to replenish our riker box inventory.

Tonight's speaker is Jack Hutchings from the University of South Florida and his topic is "The Gastropod Family Naticidae".

A Swap, Sell, and Exhibit event and the monthly raffle were held. It was well attended.

Refreshments were provided by Marilyn Villareal and Margaret Mabe.

FLORIDA FOSSIL HUNTERS 2011 FOSSIL FAIR

The Florida Fossil Club will hold their Fossil Fair at the Central Florida Fairgrounds in Orlando on October 8th and 9th, 2011. The Fairgrounds are located in Orlando at 4603 W. Colonial Drive. Exit off I-4 (Hwy 50). Sat 9am to 5pm and Sun 10am to 4pm. Call 407-699-9274 or visit www.floridafossilhunters.com for more details and directions.

The Fossil Club of Lee County CODE OF ETHICS

All Club members will fully comply with the rules, regulations, and policies of the host landowner or company.

Members will not enter any property or facility, public or private, without permission.

Members will respect the host's property and be good guests. They will not litter or cause any damage.

Members will respect the host's concern regarding safety and ensure full compliance with safety rules. The Club trip leader will ensure that all members receive a safety briefing prior to entering the fossil hunting area.

Members will wear protective clothing and shoes, safety glasses and hard hats as may be required.

Members will not use alcoholic beverages or carry firearms when participating in a field trip.

Members will agree to sign liability waivers as may be required by the host before engaging in field trips.

Members will possess fossil permits where required and fully comply with all applicable laws and rules.

WEB SITES & LOCATIONS OF INTEREST

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Fossil Club of Lee County: www.fcolc.com

Museum of Natural History @ Gainesville
www.flmnh.ufl.edu/

Florida Vertebrate Fossil Permit <http://flmnh.ufl.edu/natsci/vertpaleo/vpperm.htm>

Southwest Florida Fossil Club
www.southwestfloridafossilclub.com

Orlando Fossil Club
www.floridafossilhunters.com

PEACE RIVER Water Levels
www.canoeoutpost.com

Mark Renz's Fossil Expeditions
[www.fossilx@earthlink.net](mailto:fossilx@earthlink.net)

Smithsonian Natural History Museum
www.mnh.si.edu

Florida Fossil Clubs
www.fossil-treasures-of-florida.com

Picking Up Isolated Native American Artifacts
<http://dhr.dos.state.fl.us/archaeology/underwater/finds>

Calusa Nature Center and Planetarium 3450 Ortiz Av, Fort Myers Tel 239-275-3435
www.calusanature.com

Imaginarium 200 Cranford Ave, Fort Myers
www.cityftmyers.com/imaginarium

Southwest Florida Museum of History 2300 Peck St., Fort Myers www.swflmuseumofhistory.com

The Bailey-Matthews Shell Museum, 3075 Sanibel-Captiva Rd, Sanibel, FL www.shellmuseum.org

Randell Research Center PO Box 608, Pineland, FL
www.flmnh.ufl.edu/RRC/

Cracker Museum at Pioneer Park in Zolfo Springs, FL Tel 863.735.0119

Lost in Time, 4719 69th Street, N. St Petersburg, FL 33709, Tel. 727-541-2567 Owner Brian Evensen

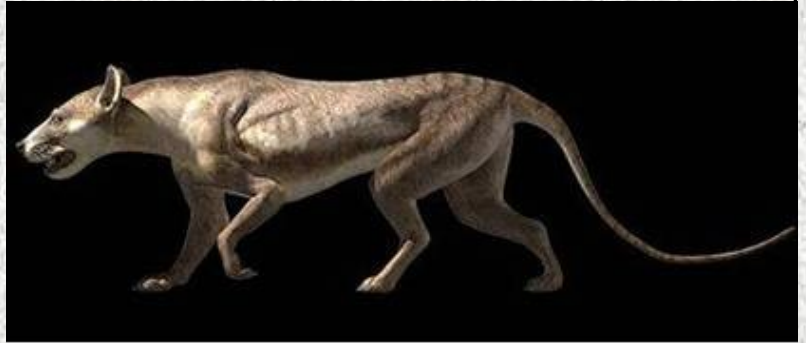
Tampa Bay Fossil Club
[Www.tampabayfossilclub.com](http://www.tampabayfossilclub.com)

Cape Coral Friends of Wildlife Burrowing Owls
www.ccfriendsofwildlife.org

COBY'S COLUMN

Bear-dog

The bear-dogs roamed north America and was the top predator when the cats weren't in north America during the Miocene. They grew to the size of a black bear, and are related to dogs and bears but are not either, hence the name bear-dog. They were hunters and scavengers, and preyed on three toed horses and such fauna.



Happy Hunting, Coby Pawlowski

SCHEDULE OF EVENTS AND SPEAKERS

SEPTEMBER 15th—Dr. Greg Herbert (USF) Last Ice Age

OCTOBER 20th—Luz Helena Oviedo (UF) Horse Evolution

NOVEMBER 17th—Kim Westberry Field Plaster Jacketing

DECEMBER 3rd—Annual Fossil Show @ Calusa Nature Center

DECEMBER 15th—Club Holiday Dinner @ Zion Lutheran Church

JANUARY 19th, 2012—Greg Shanos Meteorite Lecture

FEBRUARY 16th, 2012—Dr. Charles OConnor Panama Paleontology Project

MARCH, 2012—Club Annual Auction @ Zion Lutheran Church

Fossils found by Joshua Frank on his recent dive trip in Georgia



Three Whale Vertebrea



Megalodon Teeth



UNERUPTED TEETH

I have been asked so many times for help identifying certain fossil teeth, that I thought I would write my column on them this month. It is about unerupted teeth. Most animals have at least two sets of teeth, like us humans do. Some animals have more than two sets. However, all have something in common, which is that before being fully formed, and in use, they are unerupted and unused. So, if an animal dies while this tooth replacement is in progress, (and we know that many immature animals are the victims of early death), we find their teeth in the different growth stages. I have included some pictures, so that you can see the different look of an uninterrupted tooth compared with a mature, functional one.

The first picture is of horse teeth, upper molars. Two on the left are unerupted. The second picture is of Bison, lower molars. The third and fourth pictures are of Tapirs. As you can see, the roots are not yet formed on the unerupted ones and there is no wear on the crown. The last two pictures are of a Mastodon tooth. From the total lack of wear on the crown, and the absence of root formation, you can easily tell that this is from a juvenile, thus an unerupted, unused tooth.

I hope this helps some of you in identifying your fossil teeth. The look of an unerupted tooth is different than one being used, but it is still a tooth from that species. Some teeth are long and some are short. Some long teeth are short, from wear. And, some, both short and long, have no wear at all. Remember—form equals function. Keep this in mind and your process of elimination will help you know what your fossil is. Good luck and happy hunting!!

Louis Stieffel
Vertebrate fossil education



Fossil Hunting in Panama, part 1

Charles O'Connor

I worked in the Florida Museum of Natural History Vertebrate Paleontology Lab as a student, and my personal passion for vertebrate fossils and shark teeth has only increased since then. It is fascinating to realize that, in our lifetimes, we only experience a nanometer thin slice of Earth's history, and are mostly unaware of events and species that preceded our brief personal existence. I've given hundreds of talks to students and adults on both Florida's fossils and *Carcharocles megalodon*, and commit to helping people appreciate the scope and value of paleontology.

So, when Dr. Bruce MacFadden (Curator of Vertebrate Paleontology at the Florida Museum of Natural History) spoke to the Lee County Fossil Club, of which I am a director, about the PIRE project, I offered to volunteer, along with my wife Cindy Bear, who recalled her work as a student aid for Dr. MacFadden decades before.

The Panama Canal is being expanded to accommodate larger vessels, and important new Neogene (Miocene and Pliocene, from 23.3 million to 2.5 million years ago) fossiliferous deposits are being uncovered. The mission of the PCP PIRE (Panama Canal Project - Partnerships for International Research and Education) is to advance knowledge of the extinct faunas and floras. The multi-year project is funded by several agencies, including NSF (National Science Foundation) and the University of Florida.

We are both science and environmental educators, Cindy with the Florida Museum of Natural History's Randell Research Center, an archaeology site, and me with the Lee County School District and as a presenter throughout the region on a variety of topics. We decided to combine a PIRE volunteer stint with an expedition to a private, untouched conservation area at Cerro Chucantí in the Darien region, an untamed jungle part of the country far from cities. The trip was very arduous and quite rewarding (see next month's article).

We then spent 10 days in Panama City helping Catalina Pimiento with her paleo shark research, involving a variety of interesting tasks. Catalina previously presented her research to our club, regarding evidence that the ancient ocean covering Panama was a *Carcharocles megalodon* nursery.

Megalodon was the largest predatory shark to have ever lived, reaching lengths of 60 feet and 100 tons, with serrated teeth surpassing 7 inches in length. Its bite force was the strongest of any animal, and ranged upwards to 18 tons – great whites have a 2 ton bite, T-Rex with 3 tons. It flourished for 15 million years, dying out 2 million years ago.

Initially, Cindy and I screen washed many bags of matrix from several sites/formations, at a Panama Canal Authority house just a hundred feet from the Canal, in a highly restricted area. The matrix had to be dried, then rewashed, dried, sorted and

bagged, with all work taking place outdoors. The lawn became quite muddy in spots, and the afternoon downpours were reminiscent of Florida. *Ginormous* vessels (as my teenage students would say) silently glided past as we quietly sprayed the afternoons away. We used sets of three screens, with a large mesh on top, ending in almost window screen size mesh on the bottom.

This large complex of duplexes had previously accommodated US workers and their families, before the Canal Zone was handed back to Panama. Now, The Panama Canal Authority restricted access, but our structure was made available because we were working with material from the canal. Both sides of the duplex had been joined, and now house a significant collection. Still, we had to show Smithsonian photo ID's and official permits to enter the Canal Zone each day, and were perfunctorily searched upon leaving.

We “graduated” to Cata’s lab at STRI (Smithsonian Tropical Research Institute), using Leica stereo microscopes to search for very tiny shark teeth in the washed matrix. You could barely pick them out with by unaided eye, hence the term “micromorphic”. I calculated that on average, we found 1 tooth for every 2.5 hours of stereomicroscopic searching. Catalina uses the 10 - 20 million year old teeth to help establish climatic conditions, species diversity, and paleo sharks’ migratory patterns. The staff thought we found an excellent number of teeth, but I wistfully recalled gathering quarts of Peace River or colorful quarry teeth back home. However, it was fascinating and really remarkable to see microscopic, beautifully colored bits of minerals and insects, odd withered seeds, glistening boulders of sand, and the rare tooth. A new wondrous world opened up to our eyes! But...it became tedious after awhile, and generated some neck aches. How I now wanted to get into the field....!

Check here for photos related to this article:

<https://picasaweb.google.com/102417533422180983240/Panama1FCOLC?authkey=Gv1sRgCLDz1cKvo-WYwwE#>

More thorough visual documentation:

<http://www.flickr.com/photos/pcppire/sets/72157627297020322/>

To be continued next month - finding a juvenile 12 million year old (transitional?) sea cow!



Cindy Bear



Charles O'Connor